

# Vermont Transportation Funding An Ongoing Dilemma

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## The good news from the 2009 session:

**One time federal stimulus “ARRA” funds**

**\$125.8 million for highway infrastructure**

**\$5.7 million for new public transit buses**

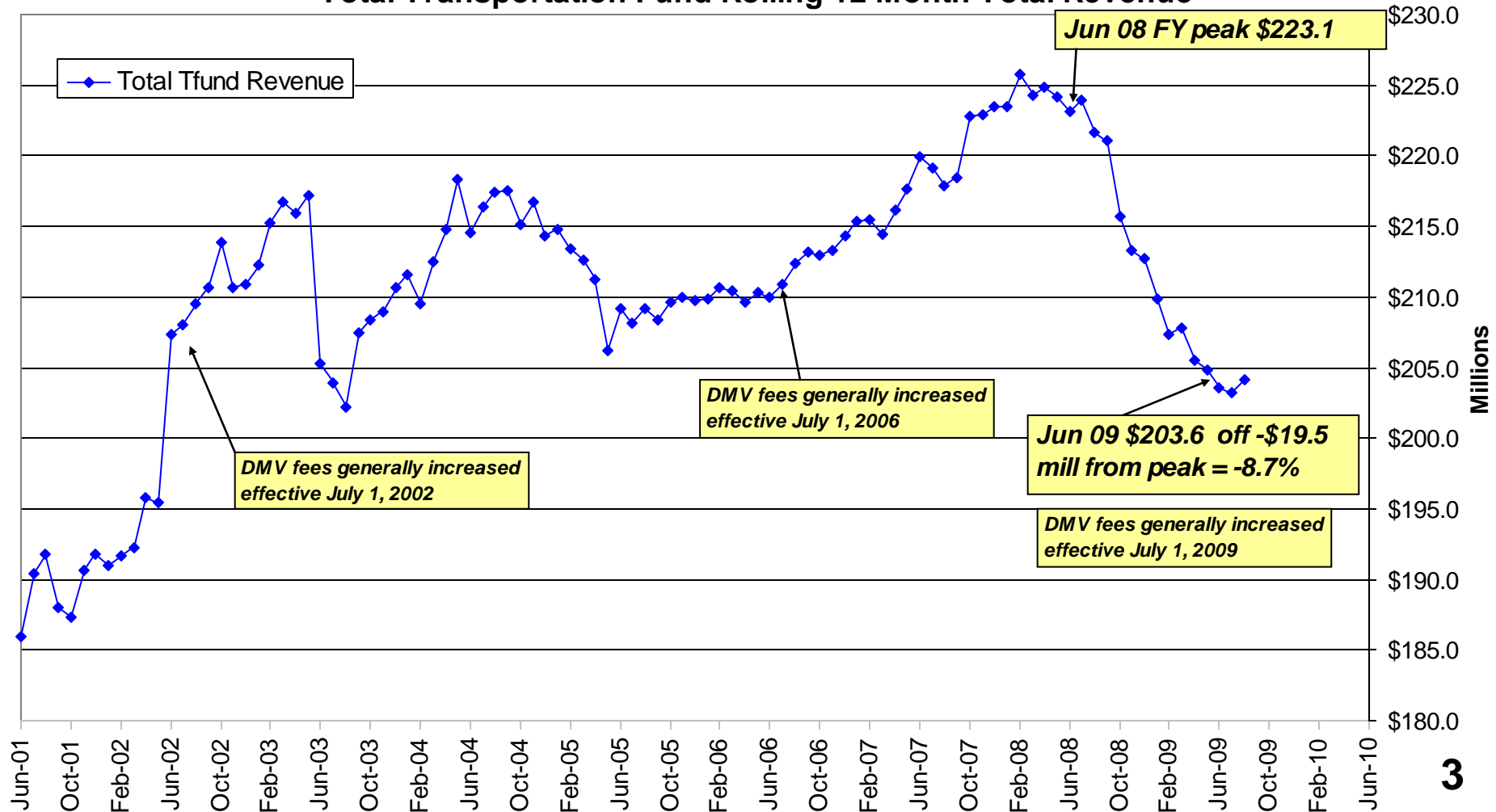
**\$22.1 million in ongoing new state revenue including  
\$13.0 million in a dedicated revolving bond fund  
which will support between \$60-80 million in bonding.**

# The longer term problem:

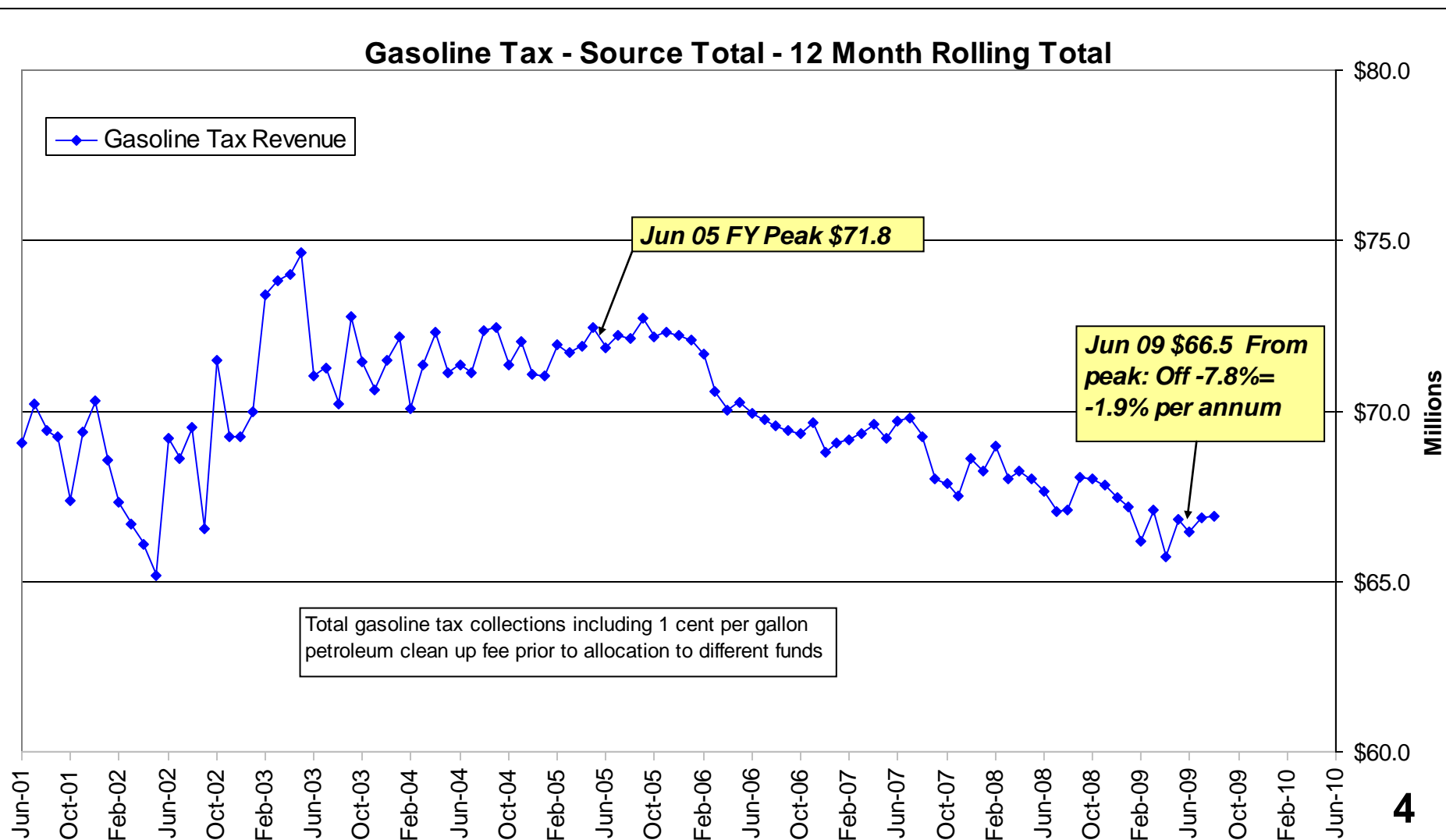
- An anemic revenue base
- Rising material costs
- Aging infrastructure

**Anemic Revenues:** Along with the economy, TFund revenue has plummeted since the summer of 2008

**Total Transportation Fund Rolling 12 Month Total Revenue**

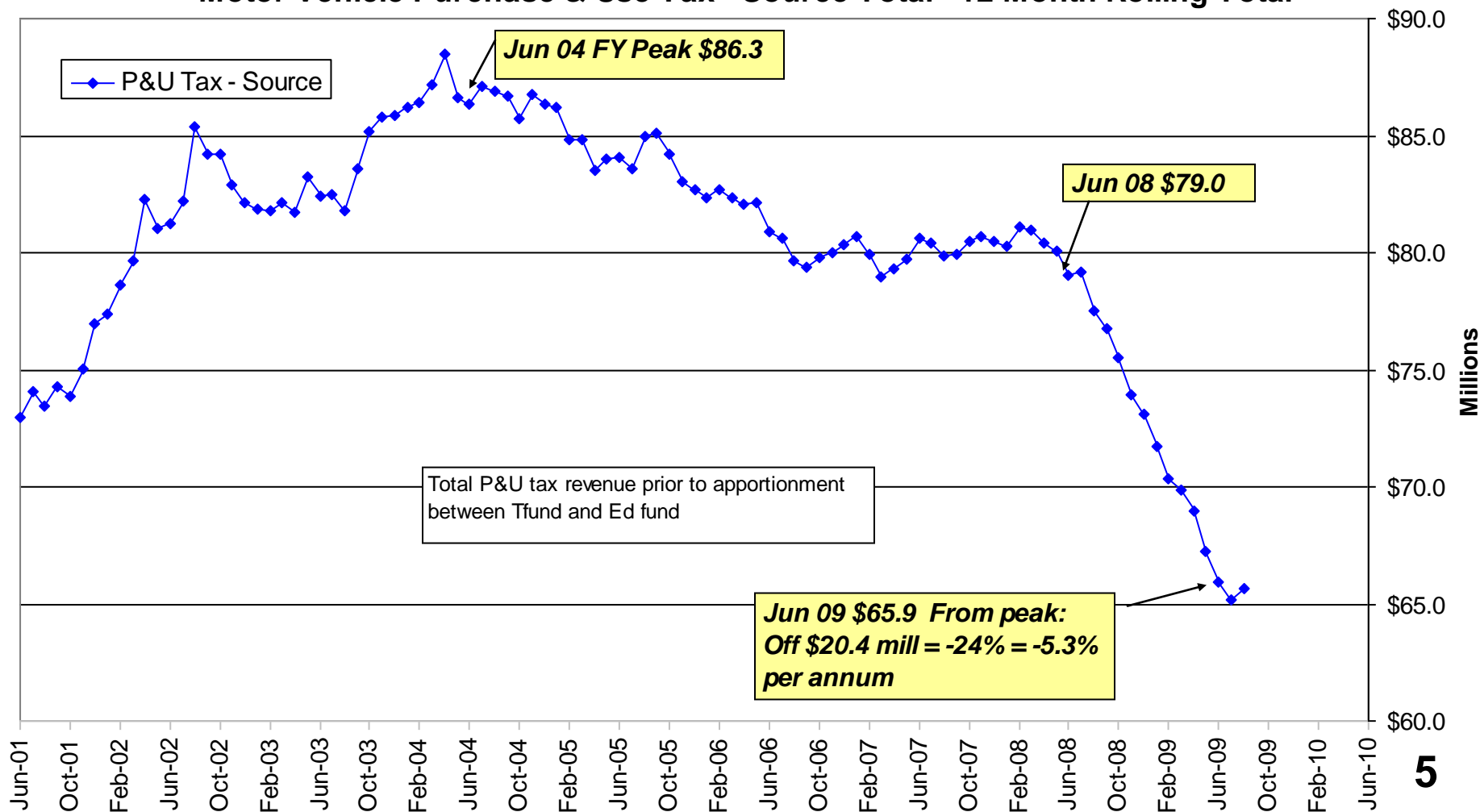


**Anemic Revenues:** Gas tax revenue peaked 4 years ago – but the decline since has been subdued



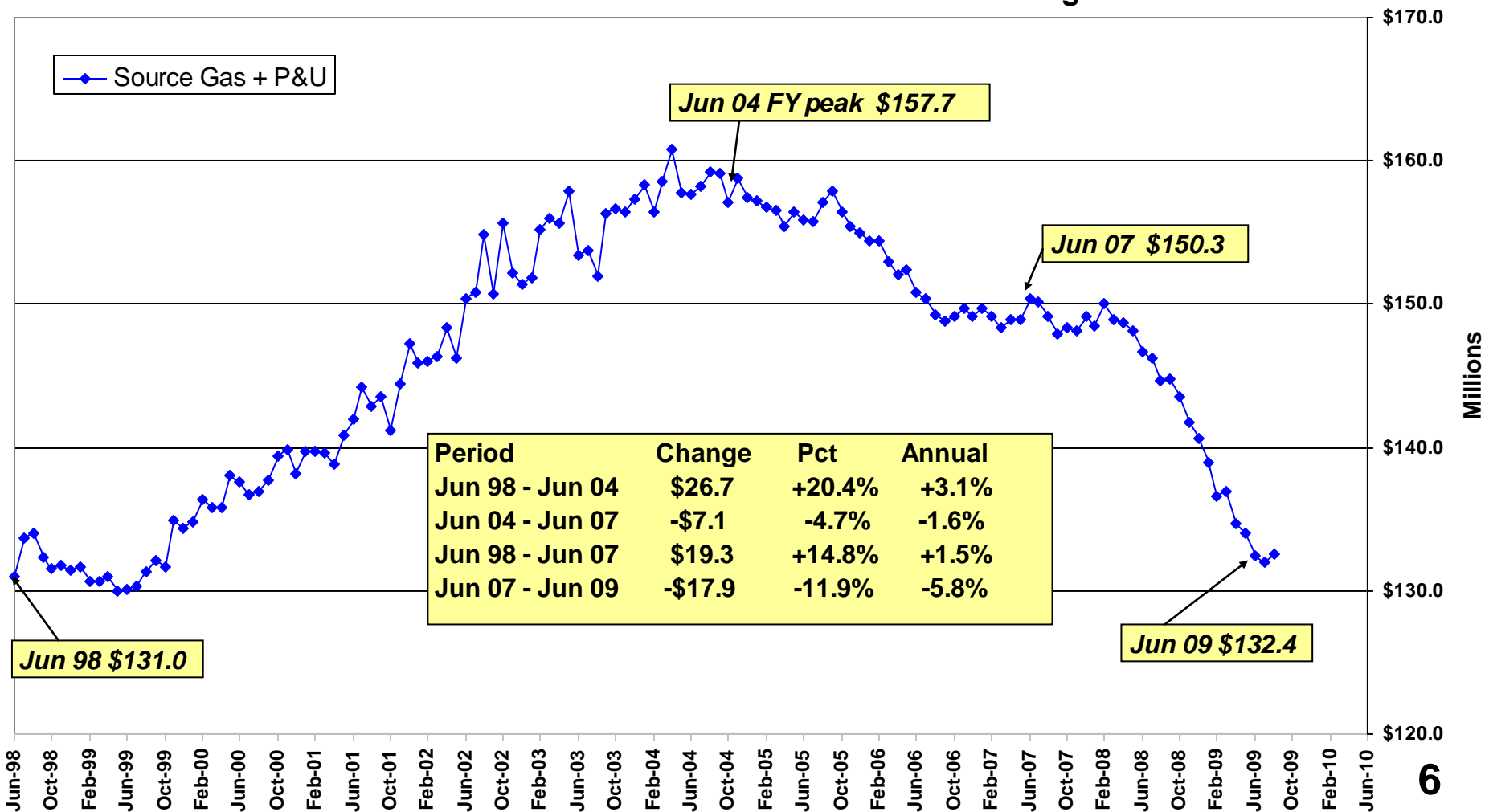
**Anemic Revenues:** The culprit – Purchase & Use tax revenue which peaked 5 years ago and since has declined by \$20.4 mill

**Motor Vehicle Purchase & Use Tax - Source Total - 12 Month Rolling Total**



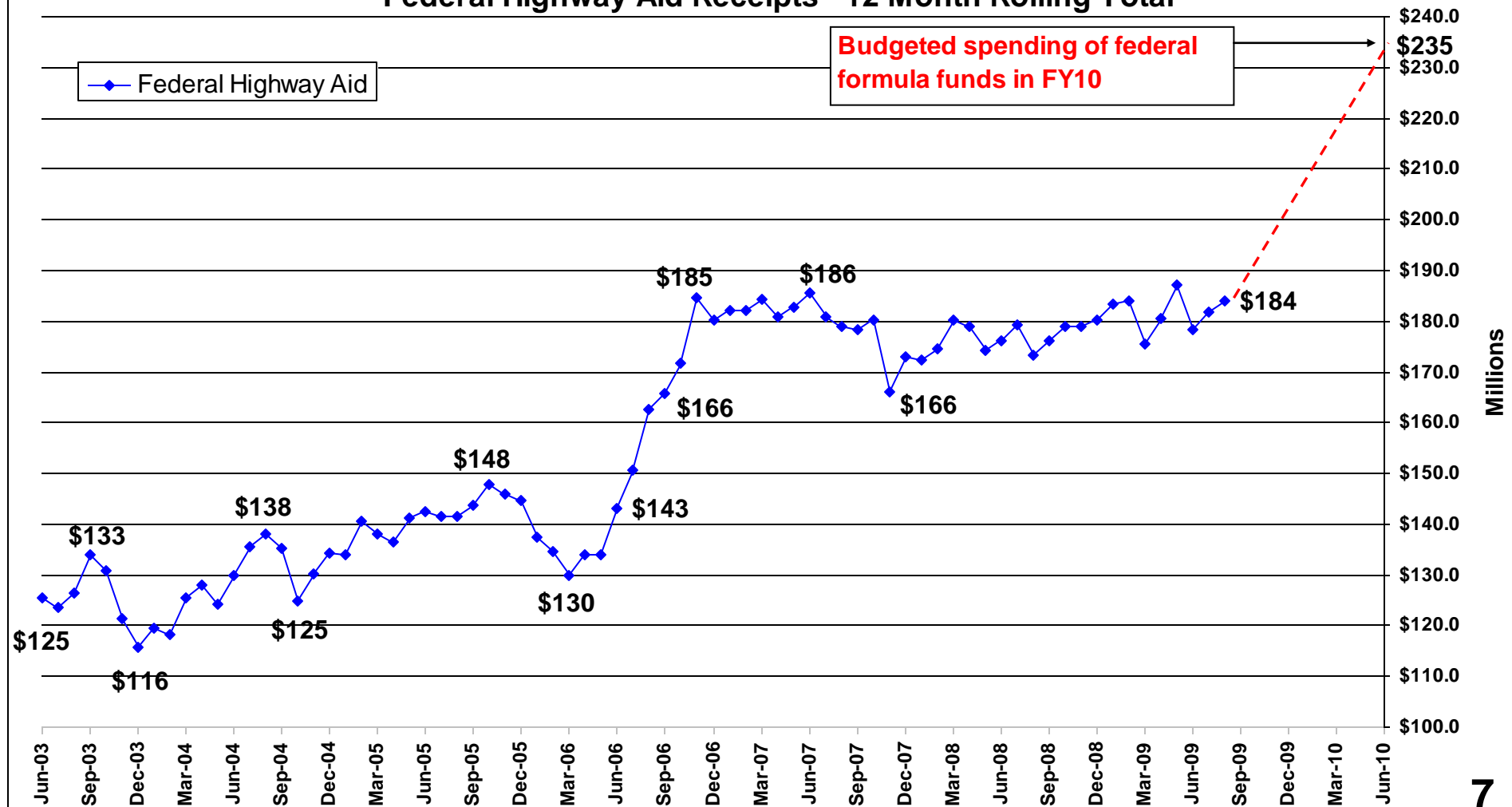
**Anemic Revenues:** Core TFund revenue growth prior to the recent decline was modest at best

Source Gas + P&U Tax Revenue - 12 Month Rolling Total



**Revenues:** Lagging state revenue has been offset by a surge in federal funds due to the “Jeffords dividend” with another surge to come from ARRA stimulus

## Federal Highway Aid Receipts - 12 Month Rolling Total





## Revenues: ARRA stimulus funds will pump up spending the next 2-3 fiscal years

FY10 Transportation Program		
Line No		Conference
1	April forecast TFunds	204,900,000
2	Net new TFund revenue	9,065,357
3	Excess Stabilization Reserve	753,889
4	FY09 debt issue premium to TFund	673,628
5	Carry Forward from FY09	0
6	<b>= Total TFund sources</b>	<b>215,392,874</b>
7	- Debt service	3,560,515
8	- To State Police	28,350,000
9	- To Central Garage Fund	1,120,000
10	- To Downtown & Trail Funds	770,000
11	<b>= Net TFund sources</b>	<b>181,592,359</b>
12	+ Dedicated bond fund excess (2% gas, 3 CPG diesel)	13,003,998
13	<b>= Total State sources</b>	<b>194,596,357</b>
14	+Federal formula & earmark funds	234,618,914
15	+ ARRA funds	117,197,648
16	+ Interdepartmental transfers	474,843
17	+Local match	2,993,800
18	<b>= Total Transportation Sources</b>	<b>549,881,562</b>
19	<b>- Total spending</b>	<b>549,443,382</b>
20	<b>= Budget balance</b>	<b>438,180</b>
21	Unspent Fed formula funds	11,563,325
22	Unspent TIB funds	438,180
23	<b>New Revenue</b>	<b>Conference</b>
24	Net general DMV fees (line 2)	9,065,357
25	Dedicated fuel assessments (2% gas, 3 CPG diesel - line 12)	13,003,998
26	<b>Total</b>	<b>22,069,355</b>
27	<b>Vermont ARRA Transportation Stimulus Funds</b>	<b>Total</b>
28	Transportation infrastructure	125,800,000
29	Public Transit equipment	5,700,000
30	<b>Comparison</b>	<b>Total</b>
31	FY10 Total Spending as passed	549,443,382
32	FY10 Total Spending excluding ARRA	432,245,734
33	FY09 Total Spending as passed	403,070,233
34	FY08 Total Spending as adjusted	395,312,954

Line Item Highlights			
	FY10	FY09	Diff
Paving*	118,424,718	58,882,227	59,542,491
Roadway*	60,423,774	49,700,853	10,722,921
State bridges	33,790,800	25,800,000	7,990,800
Town bridges	26,069,416	17,602,289	8,467,127
Bridge Maintenance	34,051,340	12,448,348	21,602,992
Safety-Traffic Ops	23,835,344	11,813,693	12,021,651
Public Transit	26,259,839	19,719,221	6,540,618
Rail infrastructure	16,645,924	13,044,901	3,601,023
Town Grant Programs*			
TH Aid	24,982,744	24,982,744	0
TH Class 2	5,748,750	6,448,750	-700,000
TH Structures	3,833,500	3,833,500	0
*\$5 million of paving and \$5 million of roadway totals reserved for qualifying town projects			

All spending - sources	Amount	Pct
TFunds	181,592,359	33.1%
Excess dedicated bond funds	12,565,818	2.3%
Federal formula and earmarks funds	234,618,914	42.7%
ARRA funds	117,197,648	21.3%
Local and other	3,468,643	0.6%
Total	549,443,382	

**Revenues:** The federal ARRA stimulus funds will accomplish a lot of needed work over the next 2-3 fiscal years – *but then what?*

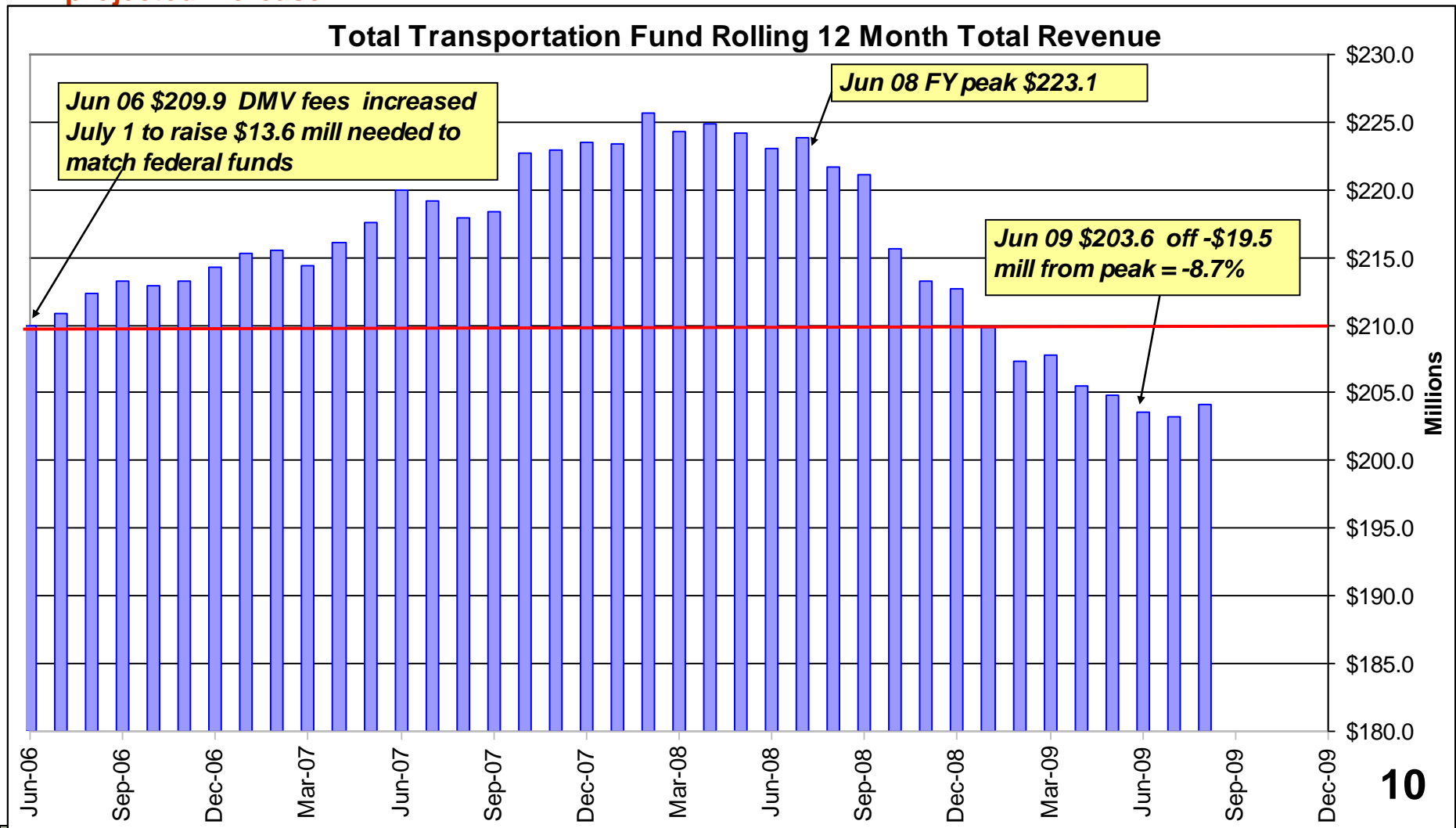
There are two problems:

- (1) The federal highway trust fund is broke, and
- (2) Even with the new revenue, Vermont is having problems generating the state match required to draw down federal formula funds.

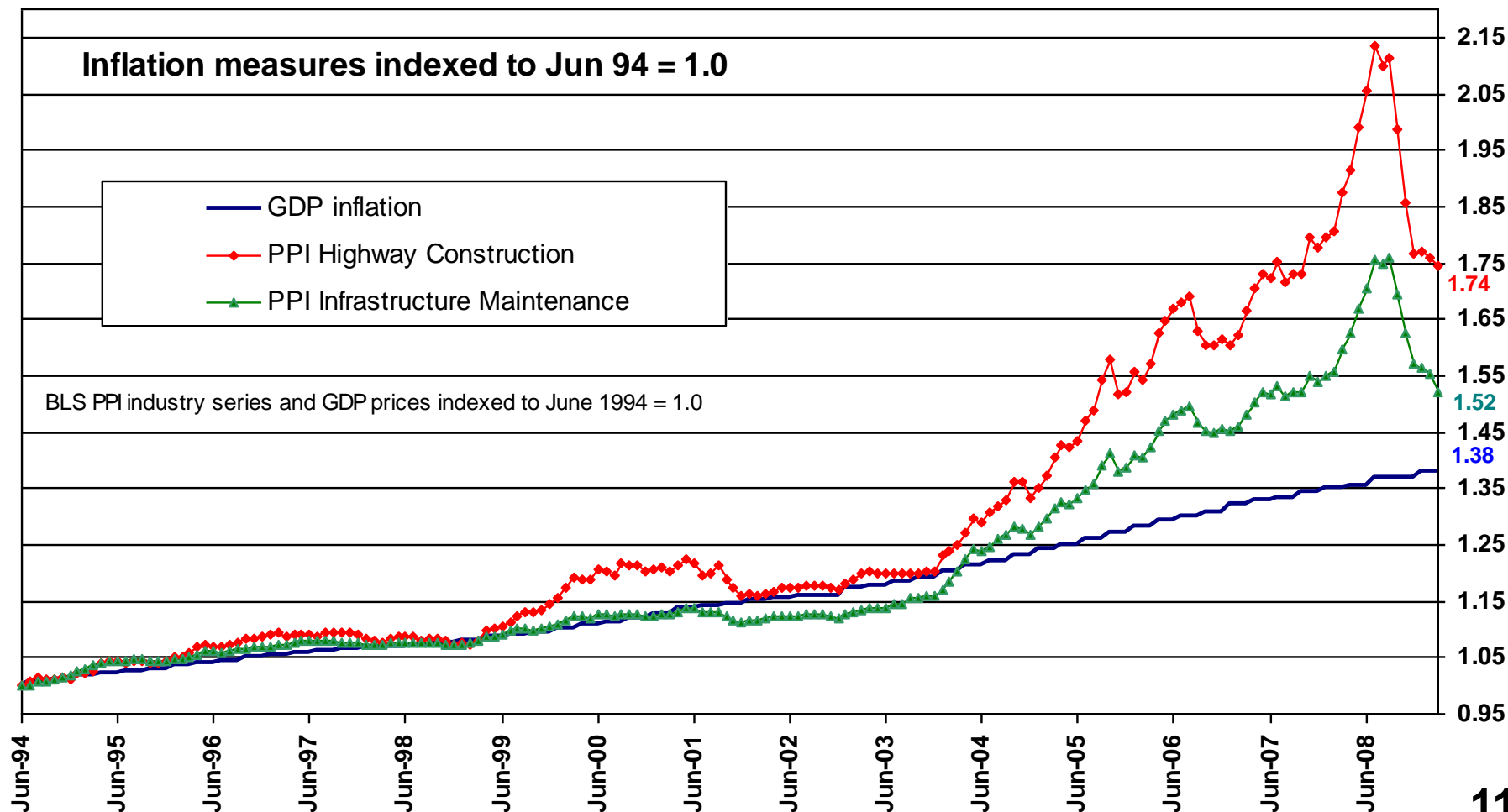
**Problem #1: Federal highway grants to Vermont are unlikely to increase significantly above current levels in the future:**

- The current elevated levels of federal formula funds spending was only achieved by spending down accumulated surpluses in the Federal Highway Trust Fund.
- An \$8+ billion transfer of federal general funds to the trust fund was needed in Oct 2008 just to keep the fund solvent through Sep 2009 and the trust fund has deteriorated significantly since Oct 2008. As of June 2009 another \$5-7 billion transfer is needed to maintain committed spending levels through Sep 2009.
- In the summer of 2008, the Congressional Budget Office projected that when the current multi-year federal transportation bill expires in September 2009, federal outlays would have to decline by more than 20% unless federal taxes are increased by the equivalent of up to 8 cents per gallon in the gasoline tax.

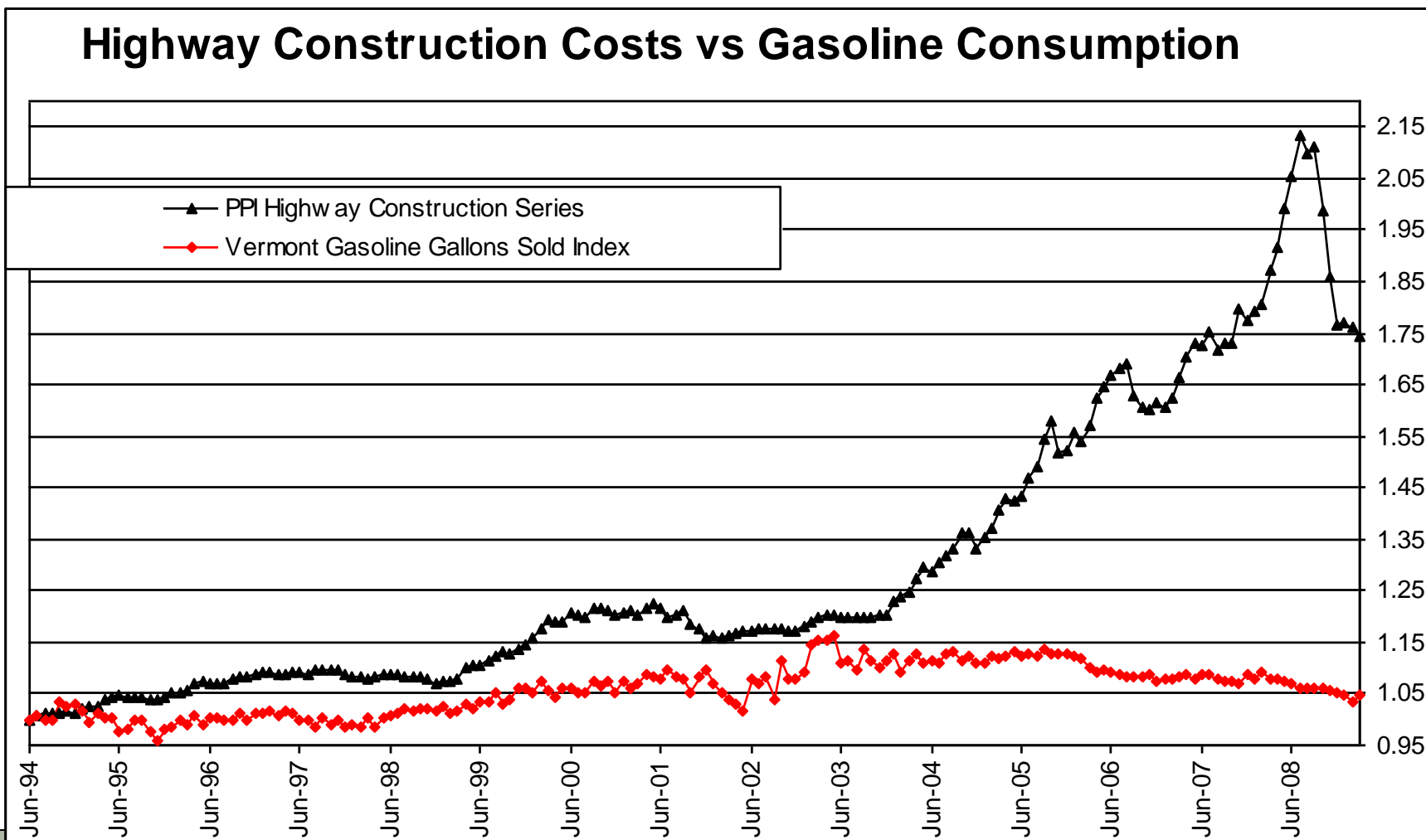
**Problem #2 – State match funds:** Federal funds require a state match and the downward trend in core TFund revenues has impaired the state's ability to secure needed match funds. The July 2006 increase in DMV fees was intended to generate the state funds needed to match the increased federal funds from the Jeffords dividend, but declining revenues have wiped out the projected increase.



**A different problem: Rising material costs:** During the 1990s highway construction costs tracked general GDP inflation but in recent years have risen much faster. As of Mar 2009, highway construction costs were 1.7 times and infrastructure maintenance costs were 1.5 times higher than in June 1994. The sharp spike up from June 2004 through June 2008 has in part been reversed in the past year.



**Rising material costs:** Transportation Fund revenue is primarily transaction based and thus tends to grow in line with population growth – disconnected from cost inflation. As a consequence, the real purchasing power of TFund revenue is continually eroded over time. As of Mar 2009, gasoline gallons sold was only 5% higher than in Jun 94 while highway construction costs were 75% higher.



## **An even more ominous problem: Aging infrastructure**

- A highway system is a network of costly structures that all eventually wear out and have to be replaced.
- If Vermont's highway system had been built incrementally over the past century, the number of structures each year reaching their mid-life point where major rehab is called for and the number of structures each year reaching the end of their useful lives that have to be replaced would be relatively stable – and annual infrastructure maintenance costs would be relatively constant.
- But Vermont's and every other state's highway system was built in two concentrated bursts of investment: (1) in the 1920-30s when the national highway system was constructed and (2) in the 1950-60s when the interstate system was constructed.
- The structures built in the 1920-30s are now 80 years old and approaching the end of their useful lives and need to be replaced and simultaneously the structures built in the 1950-60s are now 40 years old and hitting the mid-life point when they require major rehab work if their useful lives are to be extended and maximized.
- This double whammy of cost pressures is unique to this era – 2009 is different than 1999 or 1989.

## Aging Infrastructure: Vermont's bridges (Data: AOT 2007)

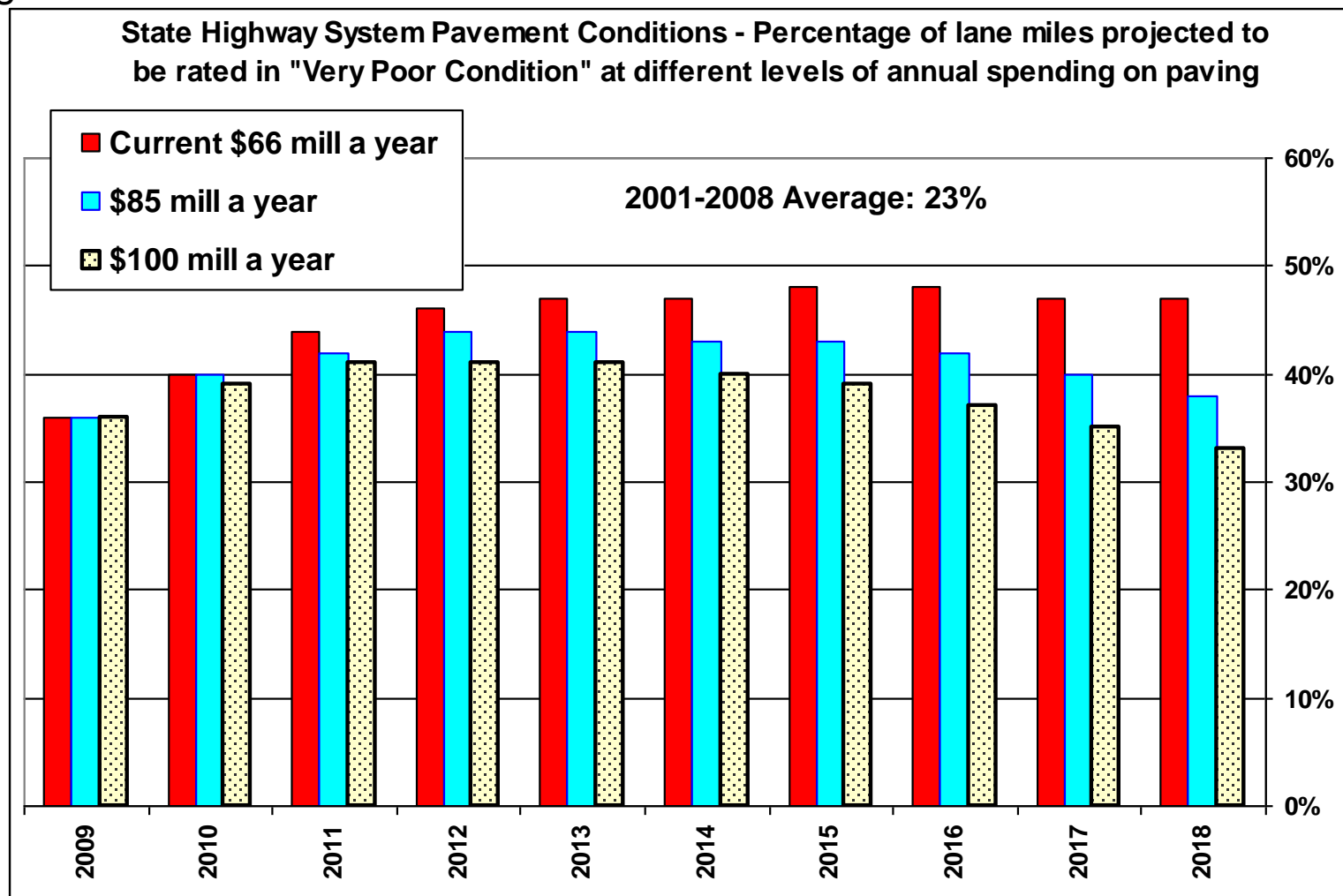
48% of the total bridge deck area in the state is between 31 and 50 years old.

The average useful life of a bridge deck is 40 years. To the extent these decks are not replaced before they start to crack and leak, repair costs will rise geometrically.

All Vermont Bridges 20' or longer				
Age since Recon	No	Pct Tot	Deck Area	Pct Tot
1-10	307	11%	981,233	11%
11-20	348	13%	1,237,230	14%
21-30	364	14%	1,070,675	12%
<b>31-40</b>	<b>571</b>	<b>21%</b>	<b>2,456,569</b>	<b>28%</b>
<b>41-50</b>	<b>360</b>	<b>13%</b>	<b>1,750,576</b>	<b>20%</b>
51-60	190	7%	430,914	5%
61-70	184	7%	322,684	4%
71-80	222	8%	361,004	4%
81-90	94	3%	92,635	1%
>90	46	2%	67,578	1%
Total	2,686	100%	8,771,098	100%

## Aging Infrastructure: Vermont's highways (Data AOT 2009)

The percentage of state highway system pavement rated in “very poor condition” has already climbed from 23% early in the decade to 36% in 2009 and is headed higher.





## Aging Infrastructure: Estimating the funding gap I

- The Joint Fiscal Office estimates that just to maintain the existing infrastructure in serviceable condition would require spending \$415 million a year for the next 30 years.
- Our current level of spending infrastructure preservation: \$211 million
- Spending gap: \$203 million
- Consequences: (1) deteriorating conditions and (2) higher repair costs in the future.

Annual Infrastructure Preservation Costs			
\$millions	IPC	FY08	Gap
Maintenance	\$63.6	\$63.6	\$0.0
Paving	\$85.0	\$56.4	-\$28.6
Highway Reconstruction	\$136.3	\$38.5	-\$97.8
Bridges	\$109.8	\$29.0	-\$80.8
Town bridges	\$19.4	\$23.4	\$4.0
<b>Total</b>	<b>\$414.1</b>	<b>\$210.9</b>	<b>-\$203.3</b>

## Aging Infrastructure: Estimating the funding gap II

In the 2008 session the legislature directed AOT to analyze (1) the costs of achieving the state's targets regarding the proportion of Vermont's bridges that are deemed to be "structurally deficient" under federal standards and (2) the cost of replacing all of Vermont's bridges that are currently over 70 years old

The agency released its report in Sep 2008. Combining the two analyses, if the state over the next 20 years wanted to reach the structural deficiency targets and also replace all bridges over 70 years old, additional funding of approximately \$110 million a year would be required according to AOT.

Base line figures	Current 2008 dollars
\$2,308,860,000	Replacement cost of all bridges over 70 years old
\$856,260,000	Replacement cost of "Structurally Deficient" bridges under 70 years old*
\$3,165,120,000	Total replacement costs
\$7,000,000	Annual cost of bridge preventive maintenance

\*Includes projection of bridges expected to become SD over next 20 years

Scenario - spread replacement costs over 20 years	
\$158,260,000	Replacement costs per year
\$7,000,000	Annual cost of preventive maintenance
\$165,260,000	Total annual program need
-\$55,800,000	FY-09 total bridge spending
<b>\$109,460,000</b>	<b>Annual gap</b>

## Aging Infrastructure: A national problem

- In the last major highway bill, SAFETEA-LU, Congress provided for the creation of the “National Surface Transportation Policy and Revenue Study Commission”. The commission issued its report on transportation funding needs in Dec 2007.
- Among the commission’s findings was that between now and 2020, the nation needs to spend \$225 billion a year in order to maintain the existing highway infrastructure as well as expand capacity to relieve congestion.
- Current annual highway spending by all levels of government is \$68 billion.
- The commission’s estimate of needed annual spending is thus 3.3 times the current level of spending.
- To close this gap, federal and state gasoline taxes, for example, would have to increase by a total of 80 cents per gallon.